A STUDY OF THE FINANCIAL PERFORMANCE REPORTING SYSTEM IN A MULTINATIONAL COMPANY

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ABSTRACT

It has been recognized that an adequate financial information system is crucial for managing a business successfully. This paper is to study the financial performance reporting system of a U.S. multinational corporation and seek to discover whether this accounting function is effectively utilized.

It was revealed in the study that the financial information system of this company for the Asia Pacific region could not satisfy the need of business/operating departments in planning and control. The interviews with the finance and operating managers of the company indicated that the reporting system, despite being quite well designed and structured, has problems in timeliness, completeness, data quality and consistence and matching performance with responsibility. Some of these problems with the system were discussed and the reasons for such problems were investigated.

Recommendations for the existing problems and future management reporting trend were also discussed.

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I wish to express my deep appreciation to Ms. Jacqueline Hau who has done most of the typing of my manscript with great skill.

Most of all, my gratitude and love go to my wife, Wing Man, for her understanding, encouragement and sacrifice. Her full support is essential to my completion of this research paper and the whole three years' study in the MBA programmes.

CHAPTER I

INTRODUCTION

Accounting Information as a Management Tool

From the time of Luca Paciolo, who wrote the first book in 1494 describing the double entry book-keeping system, to the turn of the twentieth century, the development of accounting thought was mainly in the area of record-keeping for business transactions. Accounting was considered a system of recording, classifying and summarizing business transactions. The rapid growth in trade and industry, particularly in the United States and England, in the last few decades gave rise to a tremendous expansion of accounting, providing the impetus for the development of a system of book-keeping into a field of accountancy as a tool for management control.

In 1966, a committee of the American Accounting Association defined accounting as:

"..... the process of identifying, measuring and communicating economic information to permit informed judgements and decisions by means of the informations"[1]

[1]American Accounting Association, A Statement of Basic Accounting Theory (Sarasota, Fla: American Accounting Association, 1966) P. 4

Four years later, the Accounting Principle Board of the AICPA published a similar statement:

"Accounting is a service activity. Its function is to provide quantitative information, primarily financial in nature, about economic entities, and is intended to be useful in making economic decisions - in making reasoned choices among alternative courses of action."[2] In modern business management, accounting information has already been indispensable to effective management as all activities and decisions within an organization are reflected in the financial information which provides measures for performance and points to deficiencies in performance. In large organizations, accounting information assumes an even more significant role and has increasingly become a greater part of the Management Information System.

[2]American Institute of Certified Public Accountants, APB Statement No. 4, Basic Concepts and Accounting Principles Underlying Financial Statements of Business Enterprises (New York: Commercial Clearing House, 1973), Vol II, P.9067

Management Misinformation System

Much of modern business management has only been made possible by accounting information, but it does not follow that the success of management depends on the volume of information (if not data) that are placed at its disposal. There is also no assurance that accounting information can lead to success in the management functions of planning and control. There seems to be some erroneous assumptions underlying the design of most management information systems.

One of the common wrong assumptions is 'more information is better'. As a matter of fact, most managers suffer from an over-abundance of irrelevant information, yet lack a great deal of the critical information that they really should have.

Another problem is the determination of the real information needs under various organizational situations. The system should not tend to provide all the information that is ideally desirable and has to be tailored to the individual application so that only necessary information is provided to managers who understand it and know how to apply it to their activities. This weak area is quite common, particularly in large multinational corporations. One would not have difficulty in observing in such a conglomerate business that the parent organization generates from the central system a lot of information which is not useful for managing its subsidiaries' operations because of its poor understanding of such operations.

In every large group, there is a very real danger of accounting getting out of hand so that information is produced for its own sake rather that for use by management.[3]

[3] A.W. Willsmore, Accounting for Management Control (London: Pitman Publishing, 1972) P. 16

Statement of the Problem

In the previous pages, it has been concluded that:

1. Financial information is crucial to the management process and that an economic and orderly method which provides only useful information is critical to achieving the desired business goals. This is particularly true in a large multinational company with diversified products and complexity of international operations.
2. Certain wrong assumptions made by designers of management information system have, however, led to major deficiencies in the resulting system. Most of the systems have not matched their expectations and some have been outright failures.

Based on these conclusions, the present study is intended to examine the management information system of a US multinational corporation for its operations in Asia-Pacific and evaluate whether the system can meet the business needs for analysis and control purposes.

This company has achieved wide recognition in the industry for its financial control system. The essence of the system is that the performance in earnings and return on investment is set up on decentralized basis so that individual divisions are held responsible for their results. As a result of their increasing investments in the Asia Pacific region since the late 1970′s, the company′s reporting system has to include the financial results of this region with the same emphasis on matching performance with investment responsibilities.

It is interesting and somewhat surprising that this additional reporting function for the A/P region seems in general not to be able to meet the business needs. In a survey conducted among the operating managers and finance managers both in the U.S. headquarters and A/P subsidiaries for the financial services performed in the A/P region, the responses from 23 managers indicated a strong recognition of the performance reporting as one of the three most important financial services in the region and there was general consensus that current service level was low.[4]

Therefore this study has specifically concentrated on investigating the performance reporting function in the A/P region and locating any major deficiencies or weaknesses in the reporting system.

[4] This survey was part of the preparatory work for an up-coming A/P regional financial service meeting. Each participant was required to select the three most important financial services in the region from a service list. The results were:

SERVICE	NO. OF 'VOTES'
Performance Reporting	23
Business/Investment Analysis	18
Profit Objectives as Performance Criteria	10

Objectives of the Study

The objectives of this study have been:

1. To understand the structure of the performance reporting system implemented by the Company for its international operations.
2. To examine the criteria for identifying data required by the system and how such data is gathered, classified and reported to both the product and geographic management.
3. To analyse the assessment on the performance reporting function given by the information user and identify the problems perceived by them.
4. To determine the extent to which performance measures are used for purposes of analysis, decision making and control.
5. To find out the difficulties encounted by the finance and information system people in the preparation and implementation of an effective reporting system.
6. To discuss alternative approaches to improve the existing system.

Through the study of this multinational company which relies heavily on financial information for management control, the writer intends to have this report served as a reference on the design and implementation of an effective management information system for large corporations with diversified businesses and complexity of international operations.

Scope and Methodology of The Study

The Company's international operations are divided into four regions:

. Canada

. Europe

. Latin America

. Asia Pacific

Because of limitations of time and resources and the geographic distance from other regions, the scope of this study is confined to the performance reporting system in the A/P region.

The foundation part of this study is to obtain an understanding of the company's business operations and the reporting system through discussion with the accounting and information system personnel as well as the regional operating managers. In addition, the system manual and relevant literature including organization charts, accounting manual and company product guide have been reviewed.

A structured questionaire was prepared to serve as a basis for personal interviews with the managers providing and using the information generated by the reporting system.

Questions discussed cover the following:

1. General understanding of the features of the system and the reports generated therefrom.

2. Quality of the reports as to their accuracy, timeliness and flexibility.
3. Alignment of the information with the matrix organization. i.e. product management in parent company and geographic management (in subsidiaries).
4. Reporting matched with investment responsibility.
5. Extent of the use of information for analysis and control purposes.
6. Problems encountered by both the ´suppliers´ and the ´customers´ of the performance reporting system.
7. Area for improvement.

Some of the interviews were conducted in the Hong Kong office while some were carried out during a regional finance meeting held recently in Japan in which the writer was one of the participants. Persons interviewed include:

- Regional operating managers located in Hong Kong
- Finance Managers of major subsidiaries in A/P
- Finance Managers of corporate finance and respective operating departments in U.S.

Relevant books and periodicals on accounting theory, managerial accounting and management information system have been the source for the development of this study. In the light of the above examination, actual findings are evaluated and conclusions are drawn.

CHAPTER II

BACKGROUND INFORMATION OF THE COMPANY STUDIED

The Company

The Company under study has a long history. It was founded in the Unites States nearly two hundred years ago and is one of the oldest and most diversified industrial enterprises in the world. Today, the Company manufactures, distributes and sells more than 1,800 product lines including mainly the Fibers, Agricultural Chemicals, X-Ray films, Automative and Industrial Finishes, Rubbers, Plastics and Electronic products through the operation of ten product or operating departments. There are also about ten staff departments such as Finance, Legal, Employee Relations, etc, providing support services to the operating departments. With the headquarters located in the Unites States where the company has the largest concentration of employees and facilities (about 100,000 people working at 100 manufacturing sites and at sales offices), the company's operations outside of the United States, managed by the International Department, are divided into four regions:

- Canada
- Latin America
- Europe
- Asia Pacific

The Company's business in the Asia Pacific region has expanded rapidly in recent years. Today, it operates in 13 'countries' in this region which include Japan, Australia, New Zealand, Korea, Hong Kong, Taiwan, China, Singapore, Thailand, India, Indonesia, Philippines and Malaysia with more than 3,000 employees.

The market presence in each of the above locations varies significantly.

. About 70% of the sales in the Asia Pacific region are sourced from parent company.

. The Company's wholly owned manufacturing presence is minimal compared to the sales level.

. Joint ventures with local partners are a significant portion of the Company's presence.

. The product mix in the region is rich. A high percentage is classified in the strategic management categories which signify the importance of the business in the region.

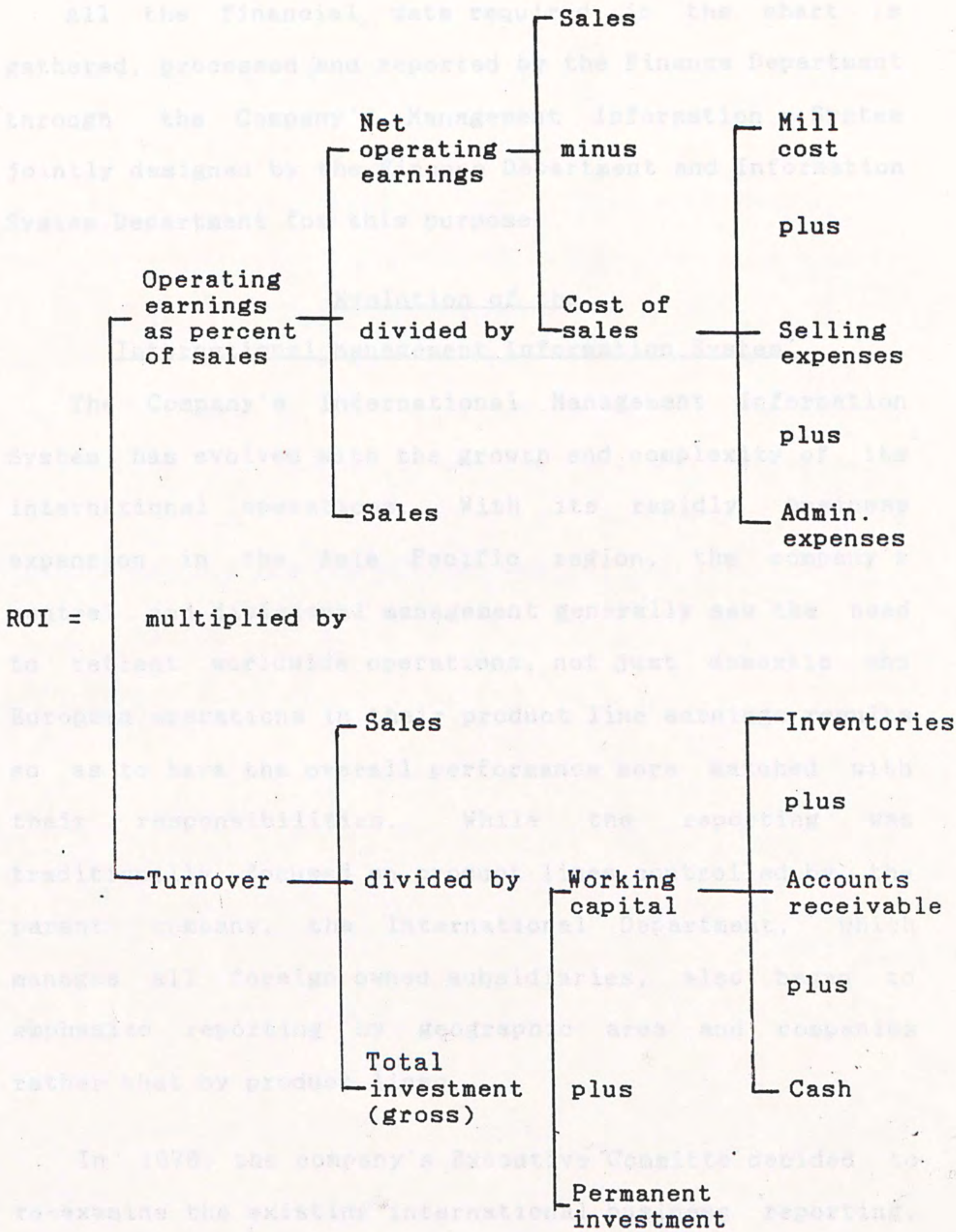
. The profitability in the region varies widely by business but in average exceeds the corporate goal.

. The countries in the Asia Pacific region are culturally and politically diverse, are separated by geography and are industrializing rapidly, though from vastly different starting points. Hence, business management strategies also vary widely, ranging from 'purely opportunistic' to 'highly strategic' and from 'country market focus' to 'regional market focus' to 'global market focus'.

In short, the Company's operations in the Asia Pacific region include many difference cultures, sites and functions serving a diverse and widespread market. Supporting these businesses requires an effective and cost-competitive financial control system.

<u>The Company's System of Financial Reporting and Analysis</u>

The Company's system has been widely adopted for financial control in multidivision companies. It brings together the gross investment and operating profits and determining the return on investment (ROI) as the performance measure. As the system is used for divisional control, each divisional manager is held responsible for his rate of ROI and rewarded or penalized accordingly. The elements contained in this financial reporting and control system are set forth in Fig. 2-1.



ROI = Before-tax return on investment.

FIGURE 2-1 CHART FOR DIVISIONAL CONTROL

Source: J. Fred Weston and Thomas E. Coperland Managerial Finance 8th ed. (CBS College Publishing, 1986)

All the financial data required in the chart is gathered, processed and reported by the Finance Department through the Company's Management Information System jointly designed by the Finance Department and Information System Department for this purpose.

Evolution of the 'International Management Information System'

The Company's International Management Information System has evolved with the growth and complexity of its international operations. With its rapidly business expansion in the Asia Pacific region, the company's central and divisional management generally saw the need to reflect worldwide operations, not just domestic and European operations in their product line earnings results so as to have the overall performance more matched with their responsibilities. While the reporting was traditionally focused on product lines controlled by the parent company, the International Department, which manages all foreign owned subsidiaries, also began to emphasize reporting by geographic area and companies rather that by product lines.

In 1976, the company's Executive Committe decided to re-examine the existing international business reporting, with a focus on matching reporing with investment responsibility. The resolution was that the responsibilities of the operating departments should include foreign investments outside of Europe, and the reporting should be aligned to both product and geographic (i.e. matrix) management.

The overall objective of the International Management Information System is to achieve a more effective management of international business by providing timely performance information to the matrix management for their better understanding and reaction to changes in volume, costs and profits. Business information in the system includes sales, costs and earings data plus investment data in relevant product lines by subsidiaries, sales detinations and sources of manufacture.

CHAPTER III

THE MANAGEMENT INFORMATION SYSTEM

The Management and Information System

A manager can hardly make a good decision without information. This importance has been expressed by Steiner, "Information flows are as important to the life and health of a business as the flow of blood is to the life and health of an individual."[6] A business cannot even survive if the available data or information is not enough of the 'right' kind for setting objectives, evaluating alternatives, making decision, acticipating problems and measuring results against plans.

The purpose of the management system is to develop plans for achieving objectives, to organize for implementing plans and to control performance against plan. The place of information in performing these functions is shown in flow chart in Figure 3-1.[7]

[6] George A, Steiner, Top Management Planning (Toronto: Collier Macmillan Canada Ltd. 1969) P. 475

[7] Robert G. Murdick, Joel E. Ross and James R. Claggett, Information Systems for Modern Management 3rd Ed. (Englewood Cliff N.J.: Prentice Hall Inc. 1984) P. 54

Management Process	Major Information Needs
RECOGNITION OF A PROBLEM OR AN OPPORTUNITY	(1) Performance against plan. (2) Information concerning problems and opportunities.
DEFINE PROBLEM OR OPPORTUNITY AND DEVELOP ALTERNATIVE COURSES OF ACTION	Evaluation of (1) and (2) in order to make a prediction of estimate of alternative courses.
DECISION	Prediction of results for alternative courses of action.
IMPLEMENTATION OF PLAN	Communicate details of plan and control standards.
CONTROL PERFORMANCE AGAINST PLAN	Performance against plan.

FIGURE 3-1 THE MANAGEMENT PROCESS AND INFORMATION NEEDS

In addition to men, money, materials and machines and facilities, which are regarded as the basic resources of the organization, information has become a vital resource. Indeed, the extent to which the basic resources are well managed is a function of how well information is managed.

With the enormously increased complexity of large-scale organizations, more and more information - knowledge about the product, customer and alternative ways to improve effectiveness - is required and new methods and procedures are also needed for gathering, retrieving and evaluating this information for making vital decisions. The information has to be managed and controlled through the system approach and the design of an improved management information system.

Elements of the Management Information System (MIS)

The system approach is fundamental and necessary for problem solving and decision making, and this process can be enhanced by the design of a management information system (MIS). Thus, a MIS can be defined as 'a communication process wherein information (input) is recorded, stored, and retrieved (processed) for decisions (output) regarding planning, operating and controlling.[8]

Regardless of the complexity of a system, the basic elements in terms of process include input, processor, output, control and feedback (Figure 3-2).[9] In an information system, inputs of data and information are processed (e.g. classified, sort, summarized, calculated) according to plan into an output. The output represents the objective and the achievement for which the system was designed. If the output deviates from standards, it is necesary to take action to either adjust inputs or modify the transformation process.

[8] Joel E. Ross, Management by Information System, Englewood Cliff N.J.: Prentice Hall Inc. 1970) P. 176

[9] Ibid, P. 183

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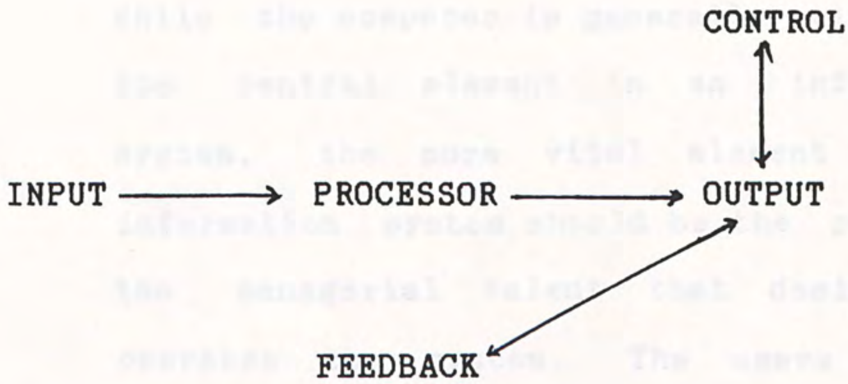

FIGURE 3-2 THE COMPLETED SYSTEMS MODULE

As the objective of MIS is the design of a flow of information for decision making, the following elements have to be considered in the system design.

Procedures - These are the instructions for operating the system, determining how the various input data are classified and processed within the system. The tasks of preparing input/output documents, detailing program flowcharts and computer programs are also included in the procedures necesary for performance.

Equipment - The Computer is the most notable catalyst as it has the capability to process vast amounts of data and to perform complex arithmetic computations. The computers alone can not make a system and it is crucial to utilize this 'tool' economically in the design of the modern information system.

People - While the computer is generally viewed as the central element in an information system, the more vital element in an information system should be the people - the managerial talent that designs and operates the system. The users of the system are also important because of their participation in design and operation.

Information - Information is the single most important consideration in the design and operation of our MIS. The system should not only provide mere data but information which is relevant, timely and complete.

Design of a MIS

The design of a system involves the arrangement of its elements and components in some combination to produce a desired objective. As mentioned above, the elements would include procedures, equipment, information and people and the components include input, processor, output, and control. The MIS, if properly designed, can improve the capability of an organization for decision making and problem solving.

The design procedures and steps of an effective management information system have been discussed in many articles and books. However, the writer finds that Russell L. Ackoff has most concisely described the design problems by arguing that certain assumptions commonly made by designers of management information systems are not justified and proposing a procedure for designing a system to overcome these assumptions and deficiencies which result from them.[10]

[10] Russell L. Ackoff, Management Misinformation System. Management Science, Vol. 14, No. 4 (December, 1967)

The five erroneous assumptions pointed out by Ackoff are:

(1) It is true that most managers lack a good deal of information that they should have, but this is not the most important informational deficiency from which they suffer. Most managers receive much more information than they can possibly absorb and actually suffer from an over-abundance of irrelevant information. They must spend a lot of time separating the relevant from the irrelevant information. Sometimes, even relevant information has too much repetition. Unless the information overload to which managers are subjected is reduced (by condensation and filtration - two of the most important functions of a MIS), any additional information made available is not likely to be used effectively.

(2) The manager needs the information he wants.
Most managers do not understand fully the decision he should make. They play it 'safe' and, with respect to information, want "everything". The overload of irrelevant information is further worsened.

(3) Give a manager the information he needs and his decision making will improve.
In most management problems, managers are expected to use their experience, judgement and intuition to provide good guesses even with perfect information.

It is necessary to determine how well managers can use needed information.

(4) More communication means better performance.

The belief here is that better interdepartmental communication enables managers to coordinate their decisions more effectively and hence improves the organization's overall performance. This is seldom so as one would hardly expect two competing companies/departments to become more cooperative because the information each acquires about the other is improved.

(5) A manager does not have to understand how an information system works; he only needs to know how to use it.

Most MIS designers make their systems as unobtrusive as possible to managers to facilitate their easy access to the system. This leaves mangers unable to evaluate the MIS as a whole, and the system designers and operators seldom possess the managerial competance for the control of the organization.

However, all the above erroneous assumptions can be avoided by an appropriate design procedure which include:-

(a) Analysis of the Decision System

The real objective of the system design is to achieve management effectiveness (quality decision making). An analysis of the decision system would make the managers understand each type of decision they should make so that they know and can specify what information they want for decision making. Decision analysis also frequently suggests changes in managerial responsibility, organizational structure and measure of performance which can highlight the deficiences of the system design.

(b) Analysis of Information Requirements

Through this analysis, the required and relevant information are identified and only the useful information is produced for the decision making.

(c) Aggregation of Decisions

Decisions with the same or largely overlapping informational requirements should be grouped together as a single manager's task. This will reduce the information a manager requires to do his job and will increase his understanding of it.

(d) Design of Information Processing

This is the design of a procedure for collecting, storing and retrieving information. One important point here is to have an extensive exception reporting system.

(e) Design of Control of the Control System

The system should be designed to be flexible and adaptive so that it is necessary to design procedures for detecting the system deficiencies and for correcting the system.

Finally, the successful design and utilization of MIS depend upon the degree to which the manager user is involved in the design effort. The participation of managers in the system design assures their ability to evaluate its performance by comparing its output with predicted values.

CHAPTER IV

EXISTING INTERNATIONAL MANAGEMENT INFORMATION SYSTEM

- REPORTING AND ACCOUNTING FUNCTIONS

This chapter covers the scope of the Company's International Management Information System (IMIS), describes the reports generated and how the data is collected and reported through the computerized system. Finally, the accounting functions of the IMIS are also covered.

Scope of IMIS Reporting

The scope of reporting is illustrated in Figure 4-1, which shows the general flow of international business information and how it relates to departmental and corporate reporting. The present system covers Parent Company worldwide export operations and the opreations of consolidated subsidiaries (in Asia Pacific and Latin America). Operations of subsidiaries in Europe and Canada and affiliated companies are not included. However, products manufactured by subsidiaries in Europe and Canada and affiliated companies may be included if sold by subsidiaries in A/P region.

SCOPE OF IMIS REPORTING

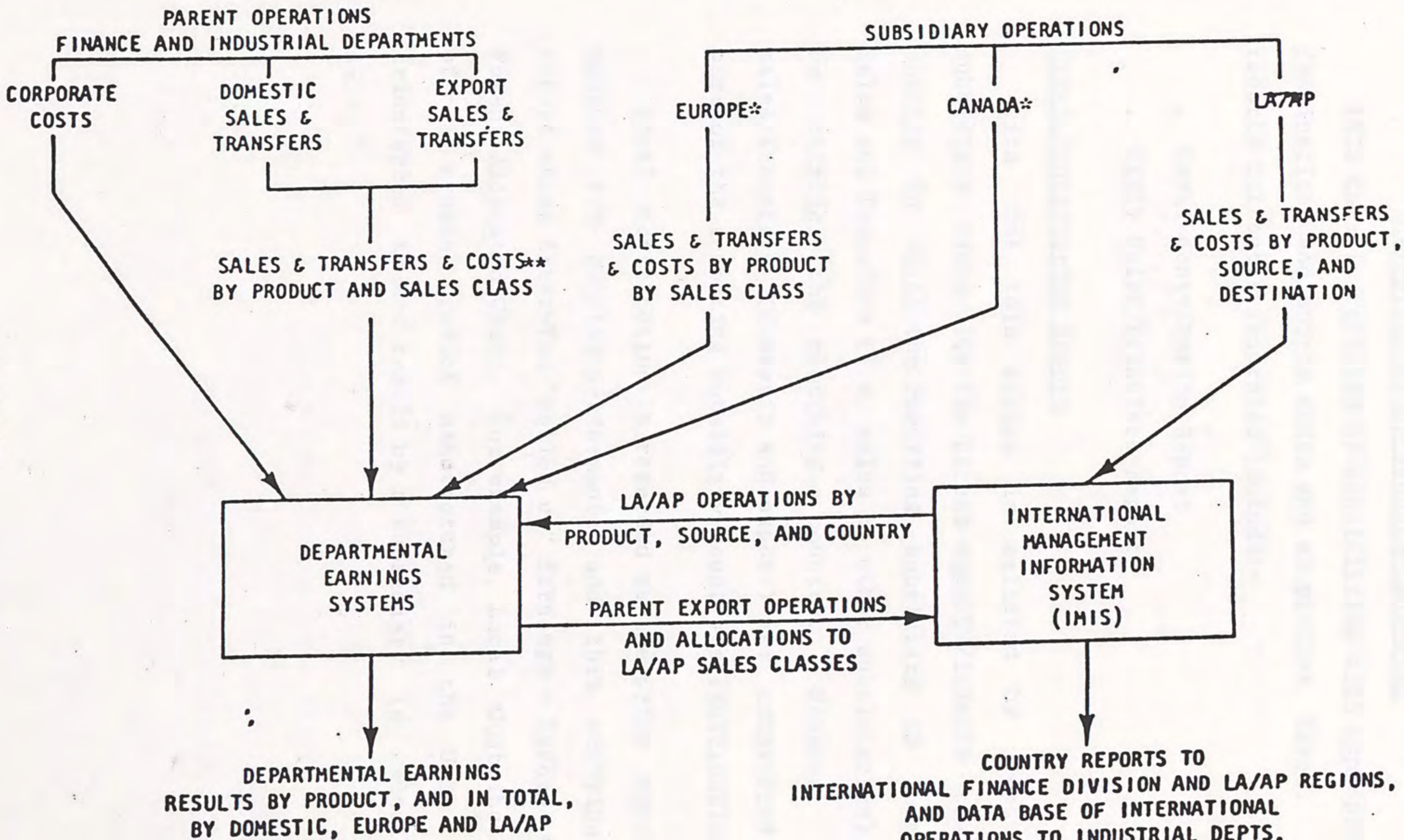

Figure 4-1

*Currently not included in IMIS.
**U.S. exports, U.S. resales, local manufacture, other source.

Descriptions of Reports Generated

IMIS data is reported by subsidiaries with appropriate destination and source codes and at product level. The reports currently generated include:-

- Local Contribution Report
- Early Sales/Transfers Report

Local Contribution Report

Data for this report is selected by reporting subsidiary basis plus the parent exports/indents to the country in which the reporting subsidiary is located. Sales and Transfers (i.e. sales to other subsidiaries) may be outside the reporting country. However, all sales/transfers (domestic and export) are considered as part of the reporting subsidiary country's contribution.

Local contribution is regarded as the prime earnings measure for country performance and this contribution report shows After-Tax "Rolled up" Earnings - Before U.S. Parent Allocated Costs. For example, Local Contributions of a resale product manufactured in the U.S. and transferred to and resold by a subsidiary is calculated as:-

Sales

Less: Cost of Goods Sold (adjusted for transfer pricing)

U.S. Freight and Distribution Expenses

Subsidiary incurred expenses (freight, insurance, selling, admin., etc.)

Income Taxes

= Local Contribution

A proforma of the report is shown in Appendix 1

Referencing the column headings in Appendix 1

U.S. Resales - Products transferred from Parent Co. resold and reported by a subsidiary.

Indent - Parent Comapny exports to the country (destination basis) in which the local subsidiary has an involvement in the sale. The subsidiaries usually receive commissions or service charges and incur expenses for these sales.

Local Manufacturing - Products manufactured in a country and reported by a subsidiary in the same country. The <u>destinations of the sales may be outside the reporting country</u>.

Other Manufacturing - Sales by the reporting subsidiary of products manufactured by subsidiaries located in other than the reporting country and the U.S. affiliated companies or non-related companies.

Sub-Total - The sum of the first four columns and the total "Local Contribution" for the country.

Direct Export - Parent Company exports to the country (destination basis) that have no subsidiary involvement. This is for information and not considered as part of local contribution.

Referencing the row headings, most items are self-explanatory and include:-

Sales Quantity - Units of measurement of product.

Sales - Outside sales made by subsidiary or parent company.

Transfers - Subsidiary's Transfer to other subsidiary companies.

Cost of Goods Sold (Variable) & Plant Cost (Fixed)	- Average inventory value of manufactured goods sold during the reporting period.
FPDE	- Finished Product Distribution Expenses (Variable & Fixed) including freight and insurance costs incurred between the time it is packaged at the end of the production line and the time it is delivered to the customer's facility.
Selling Expenses (Variable & Fixed)	- Expenses incurred in the sale of the finished product inventories to customers. Examples are product advertising, salesmen's salaries and travel expenses, product samples, commissions, sales office expenses, bad debt expenses and allocated costs from staff departments (e.g. Finance, Employee Relation).
Admin. Expenses	- Cost of general company activities which cannot be measured or reasonably allocated to specific income producing operations of the company. Examples include general management and corporate accounting,

treasury and banking function, public affairs and legal work.

Other Income/ Expenses - Net of income and expenses arising from royalties, gains and losses from disposal of fixed assets and miscellaneous items.

CEP - Cost of exchange protection set up by parent company and reported by subsidiary.

Taxes - Departmental earnings tax rate applied to Pretax Operating Income.

U.S. Expenses & Credit - Parent Company selling, administration and other expenses allocated to the reporting subsidiary.

All the above data is reported by subsidiary for the "U.S. Resales", "Local Mfg.", and "Other Mfg." columns and by parent company for the "Direct Export" column. With respect to the "Indent" column, the data is reported by either parent company or subsidiary.

Elemental description and data source for the report is shown in Appendix 2.

The segregation of variable and fixed costs in the report enables the computation of Marginal Contribution.

While the "Local Contribution" column reflects the true performance of the reporting subsidiary, the Fully Absorbled ATOI (Earnings after U.S. allocated costs) provides a reconciliation path to the earnings measure used by the company's Executive Committee and many of the product departments.

The report is currently available at the product group, division, department and total country levels. About 20 days after the month-end closing, reports will be transmitted to the subsidiaries, electronically.

<u>Early Sales/Transfers Report</u>

This report summarizes all classes of sales into one amount and does not provide break down as U.S. Resales, Local and other Manufacturing Sales, Indent, and Direct Export Sales. Sales Data is reported on the 'destination country' basis and by source of manufacturing, quantity, value, unit price and reporting company.

'Destination' is defined as the country to which a sales or transfer is made regardless of which subsidiary reports the transactions.

The Sales figures shown in this report and the Local Contribution Report are not the same as they are generated from different bases. The latter report is on a 'reporting company' basis in which all sales are regarded as contributed by the reporting subsidiaries (or the subsidiaries issuing the sales invoices). The Early Sales

Report, on the other hand, does not give credit to the reporting subsidiaries for their export sales or transfers to subsidiaries outside of their countries. Moreover, this report is generated for the following reasons:-

(1) As no cost data is involved, this report can be generated a little bit earlier (about 10 days before the Local Contributions Report) and this is very useful for the product department to receive this early data.

(2) This report contains more sales information than the Local Contribution Report such as Reporting Company, product further detailed (from product group) to product level, source of manufacturing, etc.

A proforma of this report is included in Appendix 3.

<u>IMIS Data Collection and Reporting System</u>

To help achieve the financial reporting goals of the IMIS, an integrated Subsidiary Reporting System (SRS) has been centrally developed and is maintained by the Parent Company. This SRS was designed to enter, change, maintain and control sales, earnings and working capital data and increase data integrity which is accomplished in two phases:-

. Entry Module - enables the user to enter data via screen display and to generate a sequential file in a structured format which is then eligible for loading to SRS control.

. Control Module - Method of loading, changing, maintaining, unloading and controlling the record data file, generated out of the entry process to ensure data integrity and validity.

There are currently six types (or formats) of data required by the system. Data type 1 to 4 is required for the Local Contribution Report and data type 5 and 6 is for the Early Sales Report. (Appendix 4)

	Reporting Data
(1) Working capital	Accounts Receivable Other Working Capital Raw Materials Semi-Finished Inventory - Fixed Permanent Investment Semi-Finished Inventory - Variable Finished Products - Variable Finished Products - Quantity

(2) Pretax Earning or Pretax Operating Income (PTOI) (for outside sales)	Sales Value FPDE - Fixed Cost of Goods Sold - Fixed Selling Expenses - Fixed Administrative Expenses Other Income/Expenses - Fixed FPDE - Variable Cost of Goods Sold - Variable Other Income/Expenses - Variable Quantity Sales Fixed amount Plant Costs
(3) PTOI Transfers (for Transfer Sales to other subsidiaries)	Transfer sales value Other data same as (2) above.
(4) Parent Paid Commission (for Sales made by parent company on Indent Commission Basis)	Selling Expenses - Fixed Administrative Expenses Other Income/Expenses - Fixed Selling Expenses - Variable Other Income/Expenses - Variable

(5) Early Sales — Sales Value
(Outside Sales) — Quantity Sales

(6) Early Transfers — Transfers Value
(Transfer Sales) — Quantity Transfers

For each of the above data types, the following entries are required and segregated into two major parts.

Headers	Details
Reporting subsidiary	Account code for data
Destination	Amount
Origin or source	
Product	

REPORTING SUBSIDIARY: A reporting subsidiary code is required.

For Early Sales and Transfer (types 5 and 6)

DESTINATION : Transfer - a destination company code is expected.

: Early Sales - a destination Country code is expected.

SOURCE : A source company code is expected.

For Pretax Earnings and Pretax Transfers (types 2 and 3)

DESTINATION : Valid codes are L = Local and E = Export (Actual Destination company code is not required).

For Working Capital, Pretax Earnings, Pretax Transfers (types 1, 2 and 3)

ORIGIN : Valid origin codes are:-

1 = U.S. Parent Company

2 = Local Subsidiaries

3 = All Other (except Europe) Subsidiaries

4 = Europe subsidiaries

5 = Puerto Rico

6 = Outside Companies

All data types require:-

PRODUCT : A maximum of three products (or product groups) may be entered per screen, each corresponding to an Amount Column. The format for entry is DEPT/DIVISION/PRODUCT GROUP/PRODUCT.

ACCOUNT CODE : Code associated with AMOUNT line item entries.

AMOUNT : Quantity or dollars associated with each PRODUCT entry.

Each subsidiary can originate the required data through the entry module or build a bridge application out of the general ledger system. The bridge application generates data automatically via a program which takes data output from the General Ledger and builds a valid file eligible for input into SRS control. The bridge application reduces or eliminates the needs for key punching and optimizes efficiency and productivity.

IMIS Accounting Functions

While the subsidiaries provide the data as described above, the parent company also provides the following data which are integrated in the IMIS:-

. U.S. exports and transfers sales in values and quantities identified by product and country or company of destination.

. Other U.S. export - related expenses identified by product and destination.

. U.S. Allocations to Asia Pacific Subsidiary Operation identified by product, sales class (U.S. Export, Resales, Local Mfg. etc.) and destination.

. Taxes and tax credits.

Finally, the IMIS conducts the following accounting functions:-

. Validations of subsidiary and parent company input.

. Deferral of realization of profits on U.S. source of transfers to subsidiaries until final sales to customers by subsidiaries.

. Matching of subsidiary-incurred indent expenses against U.S. direct export sales.

CHAPTER V

IMIS - IDENTIFICATION OF PROBLEM AREAS

Internal Management Reporting

Unlike the general purpose annual reports such as balance sheets and conventional profit and loss statements which refer to the enterprise as a whole, the internal financial reports such as financial performance reports have to reveal the underlying details of operations along the lines of the actual processes employed in each specific undertaking.[11] As a matter of fact, the usefulness of these reports to management is measured by the degree to which attention is directed by these reports to the operating conditions that call for attention.

The contents of the reports need to appear as in answer to the questions which an operating manager would ask about his operations for an accounting period. One thing here which is worth mentioning is that there is always a temptation to design an "ideal" system to provide all the ′desirable′ information. The assumption of ′Give Them More′ ofter leads to considerable expenses incurred for designing such ′huge′ reports yet certain vital information is still omitted.

[11] A.W. Willsmore, Accounting for Management Control (London: Pitman Publishing, 1972) P. 64

With respect to information content, a good financial performance report should have at least the following characteristics:-

(1) Certain fundamental information has to be included. Sales figures are very important and usually should be shown by sources and classes of business, together with the corresponding sales volumes. The cost of goods sold and the various types of margin need to be supported by proper detail of cost and expense categories (such as selling and administrative expenses).

(2) When the whole business is operated by different departments or has different lines of products, the reports should reveal the volume of business and the costs and operating results realized in each line of business, highlighting which product line/segment is profitable or not profitable. These reports also relate to personal responsibility by providing costs and revenues information to the responsibility centers that are responsible for incurring such costs and generating such revenues.[12]

[12] Robert N. Anothony, Glenn A. Welsch, Fundamentals of Management Accounting 3rd Ed. (Homewood: Richard D. Irwin Inc. 1981) P. 587

Some Merits of the Existing System

Based on these criteria the company's IMIS basically generates very effective financial performance reports. The reports as described in the previous chapter contain the fundamental information for the sales, costs and earnings as well as the operating results for different product lines. As a matter of fact, all the operating or finance managers interviewed by me have the same comments that the IMIS reports are well designed and structured and the items shown in the reports are all crucial for management to better understand and control their business. The existing system for reporting performance measurement has the following merits:-

(1) Sales, cost and earning data are classified under various types of sales i.e. U.S. Resale, Local Manufacturing, Other Manufacturing, Indent Sales and Direct Export Sales. It is important for management to know which type of sales generates more income or costs than other types. In the case of a subsidiary having manufacturing facilities, it is especially important to know the volume of business and the operating result under the 'Local Manufacturing' column in the performance report.

These categorized sales volumes also help management to have an overall understanding of the role which the subsidiary plays in the market.

For example, a subsidiary has more U.S. Resales and/or other manufacturing than others implies that it is used as a distribution center for the products sourced from the parent company or other fellow subsidiaries. On the other hand, a subsidiary which has essentially indent sales only perhaps is nothing more than a sales agent for the parent company or even a representative office which is not allowed to conduct direct sales.

(2) The reports are available at product, product group, division, department, country and total region level. This segmented reporting is very useful as it shows not only the profitability of each product line of business but also provides a detailed look at all aspects and levels of the company's operations. By carefully examining trends and results in each segment, the manager will be able to gain considerable insight into the company as a whole, and perhaps will discover opportunities that otherwise would have remained hidden from view.[13]

(3) The reports show different levels of profit performance i.e. Contribution Margin, Local Contribution ATOI and Fully Absorbed ATOI.

[13] Ray H. Garrison, Managerial Accounging, Concepts for Planning, Control and Decision Making 3rd Ed. (Plano Taxas: Business Publications Inc. 1982) P. 239 This

This contribution approach which identifies variable costs separately allows the managers to evaluate the effect of declining/increasing sales volume on segment profitability more effectively. The first level of intermediate profit determination is an assessment of the contribution margin earned by each segmental activity. This margin is the resultant of deducting from sales only the variable manufacturing, FPDE and selling expenses directly incurred in achieving those sales. It also reveals the direct contribution before any allocated expenses of an arbitrary nature and also the change in overall segment profit due to fluctuation in volume or in product mix.

The next level of contribution is performance contribution (Contribution ATOI) which is identified by deducting traceable fixed costs from the contribution margin within the divisional manager's sphere of responsibility. These fixed costs are conceptually regarded as controllable in the sense that the segmental manager can influence their amount.

The final deduction form segment contribution (or local contribution) to arrive at 'Fully Absorbed' (After-Tax) Operating Income comprises a purely arbitrary allocation of the parent company's costs which could not be acceptably allocated at the previous stage by any clearly defensible basis.

In terms of responsibility accounting, local management should only be responsible for the local Contribution ATOI though the product management in the region may want to know the fully absorbed ATOI which is the bottom line income after allocated expenses from the parent company.

Identification of Problem Areas

A good design and structure of the information content do not necessarily make the reports effective. There are some other principles which are fundamental to sound management report. These other principles include timeliness, simplicity and clarity, accuracy, consistency, flexibility, motivation, etc.[14] It has been mentioned that the existing IMIS for performance measurement, though well designed and structured, has generally not been regarded as an effective tool for decisions in the Asia pacific Region. The problems of this reporting system, which have been discussed with various operating managers as well as finance personnel through informal interviews, are identified as follows:-

(1) Lag Month Reporting

Currently all Asia Pacific subsidiaries are reporting data on lag month basis i.e. January data reported at the end of February, February data

[14] James D. Willson & John B. Campbell Controllarship - The work of the Management Accountants 3rd Ed. (New York" John Wiley & Sons Inc. 1981) P. 427

reported at the end of March and so forth. These 'lag month' data will be combined with the 'current month' data reported by parent company's operating departments. Therefore, the performance report for a particular month consists of 'current month' data for parent company's transactions in the Asia Pacific Region and the 'previous month' data for subsidiaries' transactions. This 'mixed' report causes a lot of confusion to the operating managers. When they want to know their operating result, say for the first quarter, they certainly would get confused for this mixed data with an inconsistant reporting period - Data for U.S. resales, local manufacturing and other manufacturing is reported by subsidiary for the months of December, January and February (i.e. lag month basis) while the data for indent sales and direct exports is reported by the parent company for the months of January, February and March (i.e. current month basis).

The 'lag month' information might be acceptable in the past when the Asia Pacific market was just developing and most of the sales made to this region were direct sales from the parent company. The subsidiary in this region has little direct sales and acts no more than the 'middleman' for the indent sales from the parent company. However, the Asia Pacific market today is diverse, dynamic and rapidly expanding and a significant part of the total sales in this region is made directly or even manufactured by the subsidiaries.

To react to these changes, the 'lag month' data can no longer serve the business needs.

Another problem caused by the lag month reporting is the timeliness. As the processing time for integrating the data from the subsidiary's and parent company's systems and for performing the accounting functions (i.e. expense allocation, unrealized transfer profits calculation, etc.) is about four weeks, management can only have the reports for the lag month information eight weeks after month-end closing. (i.e. February data cannot be available until about April, 20). The delivery of the financial results on such a non-timely basis make it impossible to manage the business effectively.

(2) Inclusion of All Important Information

The existing IMIS only includes the parent company's worldwide operations and the operations of consolidated subsidiaries in this region. Operations of affiliated companies (Joint Venture) are not included. The Non-inclusion of the Joint Venture transactions in the performance reporting presents an important problem in the Asia Pacific region. Over the 13 countries in the region where the company has established subsidiaries, joint ventures with local partners are a significant portion of the company's presence -- e.g. Japan, Thailand, India, Korea and Australia. Local subsidiary management is not normally responsible for the joint ventures operated in their countries and they may not need to know such financial information. However, the product management which is the other party of the matrix cannot afford to ignore this significant piece of information as the Joint Venture is actually manufacturing and selling their products. The company in Japan has one big subsidiary but eight joint venture companies. One can easily imagine how incomplete the information would be if the joint venture operating results are not included in the reporting system.

In certain countries such as India and Indonesia, 100% owned foreign investment is prohibited. The only way to establish a presence in these countries is either to set up a liaison office which is not allowed to do direct sales or form a Joint Venture partnership with local companies. The company has recently expanded its investments through Joint Ventures with local companies in India, and if their operating results are not incorporated in the system, the whole picture of the company's business in that country will be totally distorted.

(3) Data Quality and Consistency

No matter how well the information content of a report is designed, it is still not an effective report if the quality of the data or information is not acceptable. One of the major problems suffered by the management is the reliability of the data presented to them through the IMIS reports. Some operating managers complain that the cost of goods sold shown in the report is unreasonably high or low while some cannot find out why certain products which they never sell have large negative balance for the cost of goods sold.

The quality problem is generally not on the data input by subsidiaries but the data reported or processed by the parent company. The Costs of Goods Sold and U.S. Allocated Costs are the two most common error items which are both derived at after certain complicated processes. For obtaining the costs of goods sold, subsidiary costs at transfer prices need to be adjusted through complicated UTP (unrealized transfer profits) calculations. The U.S. allocated costs also represent the final mixtures which comprise all kinds of administrative expenses and are calculated under various allocation methods adopted by different product departments. Therefore, the main issue here is the technical deficiency in the system for such a computation process.

Data consistency is also a problem which is related to the quality issue. Operating managers sometimes find that operating results are inconsistent within the matrix. For example, sales reported in the IMIS is different from that is shown in the Departmental Reporting System. For the same type of information, different sources are used for the departmental reporting system and IMIS. Using sales as an example, the IMIS only shows the sales directly made to a particular country in this region while the departmental reporting system may include the sales made to U.S. traders and then distributed to the end customers in that country. The inconsistent data obtained by the management would certainly negatively affect the credibility of the data supplied to them.

(4) Source Vs. Destination Basis

Currently, only the sales data is reported on destination basis which does not give credit to the reporting subsidiaries for their export sales or transfers sales to the reporting subsidiaries outside of their countries. In other words, credit is only given to the subsidiaries which sell the products to local customers regardless of where the products are sourced or sales invoices are issued. However, for the Local Contribution Report, all sales and costs data are reported on a source basis under which all sales (domestic and export) are considered as part of the reporting subsidiary's contribution. The different reporting of transactions under these two bases can be illustrated by the following example:-

A sales of $10M made to a Taiwan customer by the plant in Singapore.

Under the destination basis, the sales is reported in Taiwan and the resultant earning is included in Taiwan Contribution Report. But this sales will be taken up by Singapore and shown in the Singapore Contribution Report if it is reported under the source basis.

It is a common view among the operating managers that they should be measured by the results on the desination basis as a sale is essentially contributed by the local marketing effort and not from the source.

Since the performance report is on a source basis which cannot be related to personal responsibility, there is general dissatisfaction on the part of the product and country managements in the Asia Pacific Region. They do not have much interest in knowing where the products are manufactured but want to know the place where their customers/bussinesses are located.

Moreover, the subsidiaries in the region are essentially marketing organizations for the parent company's products. The manufacturing presence is minimal compared to the sales level and the manufacturing locations do not have the direct responsibility to sell the products outside of their own countries. The sales destination report may be more appropriate in this region in terms of responsibility accounting.

(5) <u>Controllable/Uncontrollable Costs</u>

The Performance Reporting includes the following items which are beyond the control of the local subsidiaries:-

. Cost of goods sold

. Parent incurred expenses such as FPDE, selling, etc.

. U.S. Allocated costs

Neither the product or country management in this region feel that they are responsible for the bottom line profit shown in the Contribution Report since the above costs are not controlled by them. They consider that they should only be accountable to certain items in the report but do not have the overall profit/loss responsibility.

Performance measures should relate to things controllable by the receiver of the information and accordingly, motivate desired behaviour. The existing performance reporting system obviously cannot meet this requirement.

performance reporting system obviously cannot meet this requirement.

CHAPTER VI

RECOMMENDATIONS

Summary

The underlying objective of this research has been to examine the major characteristics of the financial performance reporting system in a U.S. multinational company in order to draw tentative conclusions concerning the adequacy of the reporting system to serve management in making business decision and controlling their operations. In conducting this research, a questionaire was constructed as an aid to understand and evaluate the reporting system during the interviews with the financial personnel and regional operating managers of the company. In an attempt to highlight the effectiveness and the deficiency of the performance reporting system, the writer relied heavily on his working experience in this company as a team member of the regional financial management and the background of readings in accounting and business literature attained during his graduate study.

In Chapter II, the background of the company was noted, and an overview of the company's business in the Asia Pacific Region was presented. This helped to focus thinking on the design of an effective financial performance reporting system. Chapter III described the various factors relating to the design of a management information system. The company's existing management information system for performance reporting was analysed in Chapter IV. In Chapter V, the analysis focused on the strengths and the problems of the existing system.

General Conclusion

A survey among the operating managers and finance managers in the company's U.S. headquarters and Asia Pacific subsidiaries, as mentioned in the beginning of this research report, indicates that current service level for the financial performance reporting is low. Data and information obtained and analysed in the preceding chapters gave ample evidence to substantiate this survey result and further highlighted that there was broad dissatisfaction with respect to the timeliness, quality, consistency and flexibility of the current reports to cope with business needs and responsibilities.

Many of the users of the system still considered that the performance reports were bascially well designed and structured to present all vital information and contain a very detailed breakdown analysis for sales, costs and contribution. The deficiencies in other areas as mentioned above, however, outweigh all the strengths and prevent the system from being an effective decision-support tool for those responsible for operating the business.

Further Remarks and Inferences

The following inferences are drawn from the analysis in previous chapters and strategies or plans are recommended to develop an effective and efficient financial performance reporting system that would contribute to the achievement of the company's business objectives in the Asia Pacific Region.

Timely Information and Reports

The present system which reports data on 'lag month' basis and require very long processing time (about eight weeks) are totally unable to assist the receivers take timely action.

There is an urgent need to develop and implement a plan to enable current month financial performance reporting for Asia Pacific business and geographic (matrix) results so that business and geographic leaders will have a better decision-support tool for use in reacting to market dynamics, business trends, price/cost trends, etc. To achieve this purpose, the company's regional management, with support from the parent company, has formed an adhoc task force to investigate the flow of the 'closing process' and opportunities to shorten timing:-

In a way that:

- Provides for an early "reality check" of flexibility and cost versus perceived value.
- Identifies barriers and creats strategies to overcome them.

So that: A recommendation can be presented to the senior corporate Finance Department management for current month reporting.

In doing the "reality check", the following issues have to be carefully and thoroughly studied:-

(1) <u>Closing Date and Effort (Time) in Subsidiaries</u>

Whether subsidiaries are able to shorten their closing time, implication of additional manpower costs and early closing (e.g. 20th of each month) need to be identified.

(2) <u>Responsibility/Processing of Unrealized Transfer Profit</u>

The module for calculating UTP for determining Cost of Goods Sold may be given to subsidiaries for processing on their sites which may help to speed up the closing process.

(3) <u>Time Required for IMIS Input Effort</u>

As the company has several thousand product lines and requires the transactions reported by product and by destination, considerable effort for data input frontend and back end processing is required. The interface between the IMIS maintained in the parent company and the Subsidiaries' General Ledger System may build a bridge so that the data can be electronically transmitted and no manual input effort is required.

(4) Current Month Reporting Required for Small Subsidiaries/Branches

A few subsidiaries are quite small or only established in the form of liaison office. It may not make any sense to include them in the current month reporting requirements.

(5) Usefulness of "Piecemealing" Incomplete/Estimated Data

Timely data which is reasonably estimated is always better than the data with complete accuracy which is too late to be useful. The extent of the accuracy that can be sacrificed in order to get timely reports should be considered.

Close Partnership With Customers

It is important to work closely with the business (operating departments) to understand their individual needs and priorities. Currently, there are at least three areas in which the customers are not able to get what they need:-

(1) Performance Results of Alliliates or Joint Venture

Affiliated or Joint Venture are not majority-owned subsidiaries and in this region, most are managed by the 'other' partners. Their performance reporting systems are of course different and both of the company's product and country management find it very difficult to integrate the data generated from different systems. Efforts should be directed to the inclusion of the joint venture's financial results in the company's own system so that the product management will have the overall picture of how their business are operated.

(2) <u>Sales through U.S Traders to This Region</u>

Currently this data is not shown in the reports as such sales are treated as U.S. domestic sales. The inclusion of these transactions is important to reflect the overall business situation and recognition of contribution as these sales are virtually contributed by local subsidiaries' efforts. There should be a system to collect these sales data from the traders and report them as the sales to this region in the IMIS.

(3) <u>Sales Analysis by Customers</u>

Apart from the destination country, the customers always want to know further to whom the sales are made in a particular location. It will be desirable and valuable if the existing system can generate a report for sales by major customers.

To work closely with the customers and understand their needs are crucial, but this does not mean that they must be provided what they would like to have. The financial department (including the system people) should help their customers define their real needs and provide them, in a cost-effective manner, with only the necessary data.

Functioning Capability Upgrade

Data structure/processing under the existing system is complex, cumbersome and not well understood. Definitions of data (e.g. Cost of Goods Sold) in different product departments are not consistent. Certain data is reflected in IMIS at a level inconsistent with performance measures used by the product departments in their own reporting system. As a result, data quality is poor and the credibility for its realibility is seriously damaged.

Functioning capability needs to be upgraded for the information suppliers both in the U.S. and the region so that they have sufficient knowledge and capabilities to understand, simplify and improve the data structure and processing methods. The upgrade of functioning capability should result in the improvement of quality of data which is appropriate to decision making and flexible enough to handle relignment, restatement of history and subject to minimal interpretation. Continuous updates of the functioning capability of the financial organizations also help the members have the opportunity to grow, to progress in their carrers so as to increase their contribution to the business success by providing excellent financial services products.

Reporting Implications of The Market Orientation Thrusts

The company's business differentiation and customer orientation thrusts have led to the establishment of market aligned organizations. For example, Engineering Polymers are manufactured by Polymer Product Departments but sold in the Automotive market and the Automotive Products Department is thereby established. These changes have created the need to share information/data among organizations and the performance reporting system has to support this need by segregating financial information and sharing these data with several organizations. For example, the Automative customers of Engineering Polymers will need to be segregated from non-automative customers and the financial results reported to both Polymer Products and Automative Products Departments.

It is important to direct resources to upgrade the system capabilities so that the IMIS can report the performance results on a market aligned basis.

Responsibility Accounting

With few exceptions, the geographic (subsidiary) management in this region do not feel that they are responsible for the bottom line contribution shown in the IMIS. The existing performance reports do not relate to

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things controllable by them.

(1) Cost of Goods Sold

The subsidiaries have to be responsible for the Costs of Goods sold if the products are manufactured in their sites. However, they have no control for the 'Cost of Goods Sold" if the products are manufactured by the parent company and transferred to them at artificial transfer prices. Two alternatives may be considered to solve this problem.

. Set up of a transfer price system which reflects the true market price so that the subsidiaries cannot deny the final profit or loss responsibility.

. Use of standard costs or 'contract prices' for the goods supplied by the parent company so that the bottom line reflects the true performance of the subsidiaries.

(2) Report on Destination Basis

Performance measures should motivate desired behaviour and therefore the credit of any sales should be given to the subsidiary which markets and sells the products. The contribution should be focused on the 'marketing' organization and not on the 'manufacturing' or 'reporting' organization. Reporting performance measure needs to be aligned with the goals and responsibilities of all members of the matrix and the report design should also parallel their decision system. For example, credit for the sales of electronic products produced by the Electronic Department in Singapore for Taiwan customers should be given to the Electronic Department in Taiwan.

'Complete' Measuring on Financial Performance

The company's use of return on investment as the performance measure is so well-known and popular that this system has been widely adopted for financial control in multinational companies with multidivisions. However, the current performance reporting system for the Asia Pacific region only focuses on the operating profits and does not take account of the gross investment. Although the gross investment data (i.e. Accounts Receivable, Inventories and permanent investment-fixed assets) is required to be input by subsidiaries to the system, no report to consolidate this information is generated to the geographic management in the region and accordingly, the rate of return on investment is not known.

It might have been acceptable in the past or even up to now for not reporting the return on investments as the company's sales in Asia Pacific are mainly direct exports or resales and the wholly owned manufacturing presence is minimal compared to the sales level. It is rather insignificant to measure the return on such a small amount of investment than the operating profits. However, the rapid expansion of the Asia Pacific markets has changed the company's strategies to react to the market dynamics. One of the major responses should be the increasing investment commitment such as the establishment of local manufacturing faccilities and technical service/R & D capabilities in this region. The company's Capital Budget this year shows that nearly half of a billion (U.S.) dollars will be invested in this region. The performance reporting system should reflect this change and provide measures of the investment returns so that both the geographic (subsidiary) and global (parent) managements are given more valuable information and thus would be better prepared to make business decisions.

APPENDIX 1

GRAND TOTAL . UOM : VARIOUS
COUNTRY IN US $M
REPORT 6 ****** LOCAL CONTRIBUTION REPORT ****** PAGE 9
PROFORMA 1ST QUARTER 1986

6/01 - 86/03	US RESALE	INDENT	LOC MFG	OTH MFG	SUB TOT	DIR XPRT	TOTAL
QUANTITY	4948	18506	51240	22597	97291	3644	100935
SALES	2101	12293	28416	10579	53389	4403	57792
VAR COGS	1647	6767	15289	7477	31180	2569	33749
VAR FPDE	107	703	876	6	1692	151	1843
VAR-SELL	86	169	1260	55	1570	168	1738
MARGINAL CONTRIB	261	4654	10991	3041	18947	1515	20462
FX PLANT COSTS	502	2107	5596	-1	8204	34	8238
FIXED FPDE	35	87	49	0	171	3	174
FIXED SELL	158	42	410	0	610	42	652
ADMIN	77	4	872	42	995	0	995
OTH(INC)	109	0	-37	147	219	0	219
CEP	-232	0	-1292	-103	-1627	0	-1627
PRETAX CONTRIB.	-388	2414	5393	2956	10375	1436	11811
TAXES @ 46%	-178	1110	2481	1360	4773	661	5434
LOCAL CONTRIB *	-210	1304	2912	1596	5602	775	6377
AFTER TAX US EXPENSES AND CREDITS	-83	461	1304	-1348	334	959	1293
ATOI FULLY ABSORBED	-127	843	1608	2944	5268	-184	5084

APPENDIX 2

ELEMENT DESCRIPTION /SOURCE LOCAL CONTRIBUTION REPORT

	US RESALE	INDENT	LOC.MFG	OTH.MFG	DIR.EXPT
SALES QUANTITY	SUB	PAR	SUB	SUB	PAR
OUTSIDE SALES	SUB	PAR	SUB	SUB	PAR
TRANSFERS	SUB	N/A	SUB	SUB	N/A**

TOT. SALES & TRANS.					

VAR. COGS	SUB	PAR	SUB	SUB	PAR

VAR. FPDE - SUB.	SUB	N/A	SUB	SUB	N/A
VAR. FPDE - PAR.	PAR*	PAR	PAR*	PAR*	PAR
VAR. SELL. EXP.	SUB	SUB	SUB	SUB	PAR

MARGINAL CONTRIBUTION					

FIXED COGS	SUB	PAR	SUB	SUB	PAR
FIXED FPDE - SUB.	SUB	N/A	SUB	SUB	N/A
FIXED FPDE - PAR.	PAR*	PAR	PAR*	PAR*	PAR
FIXED SELL. EXP.	SUB	SUB	SUB	SUB	PAR
ADMINISTRATIVE	SUB	SUB	SUB	SUB	N/A
OTHER INCOME	SUB	SUB	SUB	SUB	N/A
CEP	SUB	N/A	SUB	SUB	N/A

PRETAX CONTRIBUTION					
TAXES	45%	37%	45%	45%	37%

LOCAL CONTRIBUTION					

AT US EXP & CR	BOTH	BOTH	BOTH	BOTH	PAR

ATOI FULL ABSORB.					

Message.
Subject: CHN SALES/DIRECT EXPORTS YTD
Dated: 04/28/88 at 0358.
Sender: Imis REPORTS / DUINHI/00
Contents: 2.
TO: Fanny LI / HK00H1/00

Part 1.

TO: Tim LEUNG / HK00H1/00
Fanny LI / HK00H1/00

Part 2.

REPORT 104 * DESTINATION SALES REPORT * PAGE 1
INTERNATIONAL DEPARTMENT 04/25/88
CHINA YTD RESULTS
COUNTRY: CHINA - SALES AND DIRECT EXPORTS
FROM 88/01 TO 88/03 - CHINA

	PRODUCT	DESCRIPTION	SOURCE OF MFG	REPORTING COMPANY	UOM	QUANTITY	VALUE	$/QTY
	AC217607	"LONDAX" 10 W.P.	2350	2350	LB	14,326	73,500	5.131
			2351	2350	LB	0	245,000	NA
		REPORTING COMPANY SUMMARY: 2350				14,326	318,500	22.232
*	TOTAL PG	"LONDAX"			LB	14,326	318,500	22.232
		REPORTING COMPANY SUMMARY: 2350				14,326	318,500	22.232
**	TOTAL DIV	HERBICIDES			VAR	14,326	318,500	22.232
		REPORTING COMPANY SUMMARY: 2350				14,326	318,500	22.232
***	TOTAL DEPT	AGRICULTURAL PRODUCTS			VAR	14,326	318,500	22.232
	BM331002	RECEPTORS	2351	2350	EACH	1	352	352.000
	BM331003	STEROIDS	2350	2350	EACH	2	551	275.500
			2351	2350	EACH	1	322	322.000
		REPORTING COMPANY SUMMARY: 2350				4	1,225	306.250
*	TOTAL PG	RECEPTORS			EACH	4	1,225	306.250
	BM331102	NUCLEOTIDES/NUCLESIDES	2350	2350	EACH	0	379	NA
			2351	2350	EACH	2	829	414.500
	BM331104	AMINO ACIDS	2351	2350	EACH	1	210	210.000
	BM331106	RESEARCH SYSTEMS	2350	2350	EACH	1	236	236.000
			2351	2350	EACH	1	236	236.000
	BM331114	NUCLEOTIDE 32P	2350	2350	EACH	13	893	68.692
			2351	2350	EACH	13	849	65.308
		REPORTING COMPANY SUMMARY: 2350				31	3,632	117.161
*	TOTAL PG	MOLECULAR BIOLOGY			EACH	31	3,632	117.161
	BM331502	RC-SS CENTRIFUGE SALES	2351	2350	EACH	20	163,169	8,158.450
	BM331504	SUPERSPEED ROTORS	2351	2350	EACH	75	101,586	1,354.480
	BM331506	SUPERSPEED ACCESS.	2351	2350	EACH	74	23,696	320.216
		REPORTING COMPANY SUMMARY: 2350				169	288,451	1,706.811
*	TOTAL PG	SUPERSPEED CENTRIFUGES			EACH	169	288,451	1,706.811

APPENDIX 3

APPENDIX 4(A)

WORKING CAPITAL & INVESTMENT DATA SUBSIDIARY REPORTING SYSTEM

PRODUCT LEVEL

REPORTING SUB ☐ **ORIGIN** ☐

DESCRIP	DE/DV/PG/PR	DESCRIP	DE/DV/PG/PR	DESCRIP	DE/DV/PG/PR

G/L	AMOUNT	AMOUNT	AMOUNT

*** WARNING ***

PRODUCT AND PRODUCT GROUP LEVEL MAY NOT BE COMBINED ON SAME FORM.

WWR-CP[illegible]

SALES
PRETAX EARNINGS (PTOI)
SUBSIDIARY REPORTING SYSTEM

PRODUCT LEVEL

REPORTING SUB ☐ **DESTINATION** ☐ **ORIGIN** ☐

DESCRIP	DE/DV/PG/PR	DESCRIP	DE/DV/PG/PR	DESCRIP	DE/DV/PG/PR

G/L	AMOUNT	AMOUNT	AMOUNT

*** WARNING ***
PRODUCT AND PRODUCT GROUP LEVEL MAY <u>NOT</u>
BE COMBINED ON SAME FORM.

[illegible]

TRANSFERS

PRETAX EARNINGS (PTOI)

SUBSIDIARY REPORTING SYSTEM

PRODUCT LEVEL

REPORTING SUB [ ] **DESTINATION** [ ] **ORIGIN** [ ]

DESCRIP	DE/DV/PG/PR	DESCRIP	DE/DV/PG/PR	DESCRIP	DE/DV/PG/PR

G/L	AMOUNT	AMOUNT	AMOUNT

*** WARNING ***

PRODUCT AND PRODUCT GROUP LEVEL MAY NOT BE COMBINED ON SAME FORM.

APPENDIX 4(D)

PARENT PAID COMMISSIONS
SUBSIDIARY REPORTING SYSTEM

REPORTING SUB [ ]

DESCRIP	DE/DV/PG/XX	DESCRIP	DE/DV/PG/XX	DESCRIP	DE/DV/PG/XX
	XX		XX		XX

G/L	AMOUNT	AMOUNT	AMOUNT

WWR-D(Rev. 9/19/85)

APPENDIX 4(E)

EARLY SALES
SUBSIDIARY REPORTING SYSTEM

REPORTING SUB [ ] **DESTINATION COUNTRY** [ ] **SOURCE** [ ]

DESCRIP	DE/DV/PG/PR	DESCRIP	DE/DV/PG/PR	DESCRIP	DE/DV/PG/PR

G/L	AMOUNT	AMOUNT	AMOUNT

WWR–E2(Rev.9/15/85)

APPENDIX 4(F)

EARLY TRANSFERS
SUBSIDIARY REPORTING SYSTEM

REPORTING SUB [ ] **DESTINATION COMPANY** [ ] **SOURCE** [ ]

	DESCRIP	DE/DV/PG/PR	DESCRIP	DE/DV/PG/PR	DESCRIP	DE/DV/PG/PR

G/L	AMOUNT	AMOUNT	AMOUNT

WWR-E1(Rev.9/15/85)

APPENDIX 5

QUESTIONAIRE

1) In your current assignment, you are principally a:-

a. Customer of the IMIS for performance measures.

b. Supplier of the IMIS for performance measures to the businesses.

2) How do you understand the contents of the performance reports generated by the IMIS which is maintained and operated by the parent company?

a. High (H)

b. Moderate (M)

c. Low (L)

d. None (N)

3) How do you understand the following processes relating to the reporting system?

a. UTP calculation

b. U.S. Allocated Expenses

4) Do you have the following problems when you communicate with your customers/suppliers for the report contents?

a) Unclear definition of the data such as Cost of Goods Sold, ATOI or US Allocated Costs.

b) Different definition of the data.

c) Different grouping of products/product lines.

d) Data from inconsistent reporting periods included in the same report (i.e. current month vs. lag month).

e) Contribution measured under source or destination basis.

5) Do you consider the reports in general contain all the fundamental information for measuring the performance of the business?

6) How do you evaluate the following characterists of the reports contents? And why?

a. Sales and earning data presented under the categories as U.S. resales, Local Manufacturing, Other Manufacturing, Indent Sales and Direct Exports.

b. Costs are separated into fixed and variable portions so that contribution margin to fixed costs can be dertermined.

c. ATOI (After-Tax Operating Income) is used as the final contribution measure.

7) From the perspective of a customer (user), do you think it is more appropriate to report the sales revenue and earnings on destination basis?

8) Is the existing reporting system generating reports on a timely basis? If not, how long do you think it is reasonable to have the reports generated?

9) Do you prefer to have more timely data with reasonable estimation than the accurate data but not timely?

10) Is it feasible to change the existing lag month basis for reporting subsidiaries' data to current month basis? What major problems it will have for such a change?

11) Do you think it is important to include the financial results of affiliated companies (or joint venture) in the existing reporting system?

12) Are there any information you want to know but not included in the existing reports? What are they?

13) How good do you feel in general about the quality of the data?

14) How do you evaluate the reliability of the following data shown in the report (Please use H, M, L or N).

- . Sales
- . Costs (COGS and FPDE)
- . Expenses (Selling & Admin.)
- . Contribution ATOI
- . U.S. Allocated Costs

15) Is the report flexible enough that you can easily pick up data for different level of detail? (e.g. by country or by region.)

16) Is the data useful for your preparing the profit objectives?

17) Do you feel the operating managers should be responsible for the contribution figures shown in the IMIS?

18) Do you see any areas in the report which do not relate to personal responsibility or represent the non-controllable elements under the business (product) managers?

19) Please mention the most two or three major problems with the existing reporting system.

20) Do you think it is acceptable for not including the investment data because of only small amount invested in this region?

21) To which extent do you use the existing reporting system as a tool for business decision making?

22) How do you evaluate the successfulness of the existing reporting system?

   a. Very successful

   b. Successful

   c. Tolerable

   d. Not satisfactory

   c. Failure

23) What do you feel about the management report trend with respect to the alignment with the market focused organization?

24) What recommendations would you make for the improvement of the existing performance reporting system?

25) What do you consider as the major or unique characteristics that a successful performance reporting system should possess for the company's business in the Asia Pacific Region?

BIBLIOGRAPHY

Accounting Prnicples Board of the American Institute of Certified Public Accountants. Statement No. 4: Basic Concepts and Accounting Principles Underlying Financial Statement of Business Enterprises New York: Commerce Clearing House, Inc. 1973.

Ackoff, Russell L. "Management Misinformation System" Management Science Vol. 14 No. 4 December, 1967.

American Accounting Association, A Statement of Basic Accounting Theory Sarosota, Fla: American Accounting Association, 1966.

Anthony, Robert N., Dearden, John and Bedford, Morton M. Management Control Systems 5th Ed. Homewood: Richard D Irwin Inc. 1984.

Anthony, Robert N. and Welsch, Glenn A. Fundamentals of Management Accounting, 3rd Ed. Homewood: Richard D. Irwin Inc. 1981.

Brickley, John W. and Lightner, Kevin M. Accounting, Information System Approach Dickenson Publishing Company Inc. 1973.

Carrington, A. S. and Howitt, G. Financial Information Systems and Models. Syndey: Whitcombe & Tombs Pty. Ltd. 1980.

Cushing, Barry E. Accounting Information System and Business Organization 3rd Ed. Addison Wesley Publishing Company Inc., 1982.

Dearden, John and Shank, John Financial Accounting and Reporting Englewood Cliff, N. J: Prentice Hall Inc. 1979.

Firmin, Peter A, "The Potential of Accounting as a Management Information System" Management International Review, February, 1966.

Fremgen, James M. "The Direct Costing Controversy - an Identification Issue" The Accounting Review Janaury, 1964.

Garrison, Roy H. Managerial Accounting, Concepts for Planning, Control and Decision Making Plano, Taxas: Business Publication Inc., 1982.

Heitger, Lester E. and Matulich, Serge Managerial Accounting 2nd Ed. McGraw-Hill Book Co. 1986.

Hendriksen, Eldon S. Accounting Theory 3rd Ed. Homewood: Richard D. Irwin, Inc. 1977.

Kallimanis, William S. "Product Contribution Analysis for Multi-Product Pricing" Management Accounting July, 1968.

Kordi, Khalil Abdulfuttach Khalil, The Major Characteristics of the Accounting Information Systems in Some Selected Saudi Industrial Businesses: A Critical Analysis Doctoral dissertation. The University of Arizona 1979.

Mott, Charles H. Accounting Reports for Management Englewood Cliff, N. J. Prentice Hall Inc. 1979.

Murdick, Robert G., Rose, Joel E. and Claggett James R. Information Systems for Modern Management 3rd Ed . Englewood Cliff, N. J. Prentice Hall Inc. 1984.

Page, John and Hooper, Paul Accounting and Information Systems Reston, Virginia: Prentice Hall Inc. 1970.

Rose, Joel E. Management by Information System Englewood Cliff, N. J. Prentice Hall Inc. 1970.

Solomon, David Divisional Performance 8th printing, Homewood: Richard D. Irwin, Inc. 1974.

Steiner, George A. Top Management Planning Toronto: Collier Macmillian Canada Ltd. 1969.

Van Horne, James C. Financial Management and Policy 4th Ed. Englewood Cliff. N. J. : Prentice Hall Inc. 1977.

Weston J. Fred and Copeland, Thomas E. Managerial Finance 8th Ed. CBS College Publishing, 1986.

Willsomore, A. W. Accounting For Management Control London: Pitman Publishing 1972.

Willson, James D and Campbell, John B. Controllership - The Work of the Managerial Accountant 3rd Ed. New York: John Wiley & Sons Inc. 1981.

Wu, Frederick H, Accounting Information System - Theory and Practice McGraw Hill Inc. 1983.

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